

LEAD (Pb) IN DRINKING WATER INFORMATIONAL NOTICE (December 2003)

SOME TAPS IN THIS WATERWORKS HAVE ELEVATED LEAD LEVELS IN THE DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THIS NOTICE FOR FURTHER INFORMATION.

Introduction

The United States Environmental Protection Agency (EPA), the Virginia Department of Health, and the NASA Wallops Flight Facility (WFF) waterworks are concerned about lead in your drinking water. Although many buildings have very low levels of lead in the drinking water, some locations at the Facility have lead levels above the EPA action level of 15 parts per billion (ppb). NASA/WFF Personnel are required to test the water system and notify the users of the results. WFF is also required to replace each service line that it controls if after completing a comprehensive treatment program, the line contributes lead concentrations of more than 15 ppb to the drinking water. If you have any questions about how WFF is carrying out the requirements of the lead regulation, please call Wayne Redmond of the Facilities Management Branch at (757)-824-1191. This notice explains the simple steps you can take to protect yourself and your family by reducing exposure to lead in drinking water.

In accordance with our State recommended testing plan, several sites were evaluated at Wallops Flight Facility during November/December 2003. The sites included Coast Guard (CG) Housing buildings 7C, 11C, 3M, and 8M, Marine Science Consortium (MSC) buildings B-13 and F-18, Navy buildings Q-29, R-20, and U-90, as well as, NASA buildings D-4, E-2, E-104, E-107, F-1, F-3, F-4, F-10, F-16, F-20, F-160, M-15, U-25, U-30, U -55, U-70, V-50, W-65, X-15, X-55 and Y-55. Of these 30 sites tested, twelve had lead levels above the 15 ppb threshold. These sites are: buildings CG-7C, CG-11C, D-4, E-107, F-10, F-16, F-20, F-160, X-15, V-50, U-70 and U-55.

Health Effects of Lead

Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery, porcelain, pewter, and in water. Lead can pose significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of children. In addition, a child at play often comes into contact with sources of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

Lead in Drinking Water

Lead in drinking water, although rarely the sole cause of lead poisoning can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.

When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or late in the afternoon, can contain fairly high levels of lead.

STEPS YOU CAN TAKE TO REDUCE YOUR EXPOSURE TO LEAD IN DRINKING WATER

Despite our best efforts mentioned above to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. Tests are conducted periodically, in accordance with the applicable regulation. To find out whether you need to have your drinking water tested or to learn more about our Testing Plan, please call Wayne Redmond at (757)-824-1191.

If a water test indicates that the drinking water drawn from a tap in your building contains lead above 15 ppb, then you should take the following precautions:

1. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in your building's plumbing, the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15-30 seconds. Although toilet flushing or showering flushes water through a portion of your building's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one or two gallons of water and costs less than 30 cents per month based on flushing cold water taps twice a day. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible, use the first flush water to wash the dishes or water the plants. If you reside in a multi-story building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more and sometimes larger pipes than smaller buildings. Ask Mr. Redmond for help in locating the source of the lead and for advice on reducing the lead level.
2. Try not to cook with or drink water from the hot water tap. Hot water can dissolve lead more quickly than cold water. If you need hot water, for meals, draw water from the cold tap and heat it on the stove.
3. If water pipes are new or have been modified recently, loose lead solder and debris may be lodged in the faucet strainers. Please call the trouble desk at Ext. 2466 to have the strainers cleaned.
4. If you suspect that your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify Mr. Wayne Redmond at Ext. 1191 and request that he have the lead solder replaced with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the Virginia Department of Health – Division of Water Supply Engineering at (804) 786-5566 about the violation.
5. If you suspect that the service line that connects your facility to the water main is made of lead, please call Mr. Wayne Redmond at Ext. 1191 and he will verify site conditions. The water system that delivers water to your facility also maintains records of the materials located in the distribution system. If the service line that connects your building to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the line. Acceptable replacement alternatives include copper, steel, iron, and plastic pipes and must comply with local plumbing codes.
6. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Please call the trouble desk at Ext. 2466 and an electrician will be sent to check and modify the electrical grounding system as necessary.

The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then one may take the following additional measures:

1. Purchase/Install a local treatment device. Local treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Many activated carbon filters may reduce lead levels at the tap, however all lead reduction claims should be investigated and carbon filters must be changed periodically. Actual performance of a specific treatment device before and after installing the unit will be checked.
2. Purchase bottled water for drinking and cooking.
3. Use drinking water fountains at WFF that are equipped with filters.

You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

1. The NASA waterworks at Ext. 1191 can provide you with information about your community's water supply and a list of local laboratories that have been certified by EPA for testing water quality.
2. The NASA Health Unit or Local Health Department at Accomack can provide you with information about the health effects of lead and how you can have your child's blood tested.